What is claimed is:

- 1. An electron beam recording substrate where electron beam information recording is carried out comprising: a substrate main body; a resist film relative to the substrate main body; and a surface layer area made of a material that suppresses enlargement of a scattering distribution diameter of electrons spread inside by irradiation of an electron beam from a resist film side.
- 2. The electron beam recording substrate according to claim 1, wherein the substrate main body is positioned on a side opposite to said resist film with respect to said surface layer area.
- 3. The electron beam recording substrate according to claim 1, wherein said electron beam recording substrate is made only of a same material as said material for said surface layer area.
- 4. The electron beam recording substrate according to claim 1, wherein said surface layer area is made of a material containing at least one of elements with atomic numbers 21 to 36, 38 to 54 and 56 to 83 by 50 wt% or greater.
- 5. The electron beam recording substrate according to claim 1, wherein said surface layer area is made of a material

containing at least one of elements with atomic numbers 73 to 79 by 50 wt% or greater.

- 6. The electron beam recording substrate according to claim 2, wherein said surface layer area is made of a material containing at least one of elements with atomic numbers 73 to 79 by 50 wt% or greater and said substrate main body is made of a material containing at least one of elements with atomic numbers 13, 14, 21 to 36, 38 to 54, 56, 57, 72 and 80 to 83 by 50 wt% or greater.
- 7. The electron beam recording substrate according to claim 2, wherein said surface layer area is comprised of a plurality of thin films.
- 8. The electron beam recording substrate according to claim 6, wherein that thin film in said plurality of thin films which is in contact with said resist film is made of a material containing at least one of elements with atomic numbers 73 to 79 by 50 wt% or greater and those other than said thin film contacting said resist film are made of a material containing at least one of elements with atomic numbers 21 to 36, 38 to 54, 56, 57, 72 and 80 to 83 by 50 wt% or greater.
- 9. The electron beam recording substrate according to claim 6, wherein that thin film in said plurality of thin films which is in contact with said resist film is made of a material

containing at least one of elements with atomic numbers 21 to 36, 38 to 54, 56, 57, 72 and 80 to 83 by 50 wt% or greater and those other than said thin film contacting said resist film are made of a material containing at least one of elements with atomic numbers 73 to 79 by 50 wt% or greater.